UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 December 2001*.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-22* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *13 December 2001* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/13/01, 06/09/03*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-5, 14-15, and 17-18 are rejected under 35 U.S.C. 102(b) as being

anticipated by Lang et al. "Lang" (WO 00/40025).

Regarding Claim 1, Lang discloses, a system for automatically switching to an

interactive application during television commercial breaks (Page 3, 3rd ¶) comprising:

an interactive application module (10 – figure 1) capable of executing an interactive

application program and generating output data (Page 6, 2nd ¶). Furthermore, set top

box 10 allows the viewer to view television programs while executing a web browser

(Page 7, 4th ¶). Lang discloses, a television program module (66 – figure 1) that

generates a television program signal (Pages 7, 2nd ¶ and Page 8, 2nd ¶). Lang teaches,

an input module (40 – figure 1) for entering user input commands into the interactive

application module (Page 6, 2nd ¶). Lang discloses, a break detection module adapted

to detect television commercial breaks in the television program signal and generate a

break beginning signal (Page 8, 3rd ¶ and Page 9, 2nd ¶). Furthermore, the event

detector can monitor events in any of the incoming video streams and control the video

switch directly by instructing the switch to replace the commercial break with a supplementary program, for example a web browser (Page 9, 1st ¶). Lang discloses, a display module (74 – figure1) having a primary display area capable of receiving the television program signal and the interactive application output data and displaying a primary display image corresponding to either the television program signal or the interactive application output data (Page 8, 2nd ¶). Lang discloses, a switching module (Page 9, 2nd ¶, lines 4-9) that switches the primary display image to the interactive application output data upon receiving the break beginning signal so that upon detecting the beginning of a television commercial break the interactive application output data is automatically presented in the primary display area (Page 9, 1st ¶).

As for Claim 2, Lang discloses wherein the break detection module is further adapted to generate a break end signal either automatically upon detecting or determining the end of a television commercial break…wherein the switching module switches the primary display image back to the television program signal upon receiving the break end signal so that the television program signal is presented in the primary display area (Page 9, 2nd ¶, lines 4-9).

As for Claim 3, Lang discloses, the television program module is a television receiver…(Page 7, 2nd ¶).

As for Claim 4, Lang discloses, wherein the interactive application program is…an internet browser program (Page 8, 2nd ¶).

As for Claim 5, Lang discloses, wherein the input module is a...hand-held controller (40 – figure 1) (Page 6, 2nd ¶).

As for Claim 14, Lang discloses, wherein the display module is a television (74 – figure 1)...having a display screen (Page 8, 2nd ¶).

As for Claim 15, Lang discloses, wherein the primary display area...can be an area constituting a majority of the display screen in televisions and computer monitors with picture-in-picture capabilities (Page 8, 2nd ¶ and Page 9, 1st ¶).

Regarding Claim 17, Lang discloses, a method of executing an interactive application program during television commercial breaks (Page 3, 3rd ¶) comprising the steps of: providing a television program module (66 – figure 1) which generates a television program signal (Page 7, 2nd ¶ and Page 8, 2nd ¶). Lang further discloses, providing an interactive application module (10 – figure 1) adapted to receive user input commands and generate output data according to an interactive application program (Page 6, 2nd ¶). Lang discloses, providing a break detection module to detect the beginning of television commercial breaks in the television program signal (Page 9, 1st ¶). Lang discloses, presenting the television program in a primary display area of a display module (74 – figure 1) until the beginning of a television commercial break is detected and then displaying the interactive application in the primary display area (Page 9, 1st ¶ and Page 10, 2nd ¶).

As for Claim 18, Lang discloses wherein the break detection module can also detect the end of television commercial breaks and wherein the interactive application is

presented in the primary display area until the end of the television commercial break is

detected and then presenting the television program in the primary display area (Page

9, 1st ¶ and Page 9, 3rd ¶, lines 4-9).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 6-8, 10-13, and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lang in view of Tsuchida et al. "Tsuchida" (U.S. 2002/0194593).

As for Claim 6, Lang discloses wherein the interactive application module (10 –

figure 1) comprises: a central processing unit (12 – figure 1) which executes the

interactive application program in accordance to the user input commands (Page 6, 2nd

¶). Furthermore, CPU 12 in figure 1 controls the operations of set top box 10 or

"interactive program module". Lang discloses, an input command interface (38 – figure

1) for receiving the user input commands from the input module and transferring the

user input commands to the central processing unit (Page 6, 2nd ¶). Lang further

discloses, a data output means (64 – figure 1) for outputting image and sound data in

accordance with the execution of the interactive application program (Page 8, 2nd ¶).

However, Lang fails to explicitly disclose a program memory for storing the interactive

application program and a pause memory for storing a user's point of progress in

executing the interactive application program. In an analogous art, Tsuchida discloses a

program memory (310a – figure 3) for storing the interactive application program (¶ 71).

Tsuchida further discloses a pause memory (430 – figure 4) for storing a user's point of

progress in executing the interactive application program (¶ 75). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Lang's system to include a program memory for storing the interactive

application program and a pause memory for storing a user's point of progress in

executing the interactive application program, as taught by Tsuchida, for the benefit of

allowing the user to resume viewing the second program during commercial breaks

where he/she previously halted viewing of the second program to return to the primary

program (Tsuchida - ¶ 75).

As for Claim 7, the combination of Lang and Tsuchida disclose wherein a user's

point of progress in executing the interactive application program is automatically stored

in the pause memory (430 – figure 4) when the switching module switches the primary

display image to the television program signal, wherein execution of the interactive

application program is resumed from the user's stored point of progress in the pause

memory when the switching module switches the primary display image back to the

interactive application output data (¶ 75).

As for Claim 8, Lang discloses, wherein the input command interface is an infrared photosensor (38 – figure 1) and the input module is one or more hand held remote controllers (40 – figure 1), which emit infrared signals (Page 6, 2nd ¶).

As for Claim 10, Lang fails to disclose wherein the program memory is a local memory connected to a remote program source that stores a multitude of interactive application programs, wherein the system comprises means to download interactive application programs from the remote program source to the local memory. In an analogous art, Tsuchida discloses wherein the program memory (330a – figure 3) is a local memory connected to a remote program source that stores a multitude of interactive application programs, wherein the system comprises means to download (156 – figure 3) interactive application programs from the remote program source to the local memory (¶ 71). Figure 3 discloses memory 330a is connected to cable modem 156 via bus 340, further cable modem connects to cable net 134 which provides access to the Internet to download interactive applications (e.g., web pages) (¶ 41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lang to include program memory and a means to download interactive application programs from a remote program source as taught by Tsuchida for the benefit of allowing users to download and view web pages along with e-mail messages on a users television during commercial breaks (Tsuchida - ¶ 67 and 71).

As for Claim 11, the combination of Lang and Tsuchida disclose wherein the means to download is connected to the internet (¶ 41 and 71). Furthermore, Tsuchida discloses a viewer may download web pages, e-mail, or streaming video via cable modem 156.

As for Claim 12, Lang fails to explicitly disclose wherein the selection and downloading of specific interactive application programs from the remote program source to the internal memory device is controlled by the input commands entered by the user via the input module. In an analogous art, Tsuchida discloses wherein the selection and downloading of specific interactive application programs from the remote program source to the internal memory device (330a – figure 3) is controlled by the input commands entered by the user via the input module (158 – figure 1) (¶ 60-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lang with the teachings of Tsuchida in order to select and download specific interactive application programs from a remote program source using an input module for the benefit of allowing a viewer to control and download specific interactive applications from a remote location from the set-top box using a remote control (Tsuchida - ¶ 60).

As for Claim 13, Lang fails to explicitly disclose means to deactivate the switching module and to manually select either the television program signal or the interactive application output data as the primary display image. In an analogous art, Tsuchida discloses means to deactivate the switching module and to manually select either the television program signal or the interactive application output data as the

primary display image (¶ 60). Tsuchida teaches a user may deactivate the switching

module by selecting substitute content 442 to replace the television program as the

primary display image by using remote control 158. The viewer could also replace the

substitute content 442 with the television program as the primary display image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Lang with the teachings of Tsuchida in order to facilitate a

means to deactivate the switching module and to manually select either the television

program signal or the interactive application output data as the primary display image

for the benefit of allowing a viewer to have control on whether the television program or

substitute content is displayed as the primary image (¶ 60).

As for Claim 19, Lang discloses wherein the interactive application module (10 –

figure 1) comprises: a central processing unit (12 – figure 1) which executes the

interactive application program in accordance to the user input commands (Page 6, 2nd

¶ and Page 7, 4th ¶). Furthermore, CPU 12 in figure 1 controls the operations of set top

box 10 or "interactive program module". Lang discloses, an input command interface

(38 – figure 1) for receiving the user input commands from the input module and

transferring the user input commands to the central processing unit (Page 6, 2nd ¶).

Lang further discloses, a data output means (64 – figure 1) for outputting image and

sound data in accordance with the execution of the interactive application program

(Page 8, 2nd ¶). However, Lang fails to explicitly disclose a program memory for storing

the interactive application program and a pause memory for storing a user's point of

progress in executing the interactive application program. In an analogous art, Tsuchida

discloses a program memory (310a – figure 3) for storing the interactive application

program (¶ 71). Tsuchida further discloses a pause memory (430 – figure 4) for storing

a user's point of progress in executing the interactive application program (¶ 75).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Lang's system to include a program memory for storing

the interactive application program and a pause memory for storing a user's point of

progress in executing the interactive application program, as taught by Tsuchida, for the

benefit of allowing the user to resume viewing the second program during commercial

breaks where he/she previously halted viewing of the second program to return to the

primary program (Tsuchida - ¶ 75).

As for Claim 20, the combination of Lang and Tsuchida disclose automatically

storing a user's point of progress in executing the interactive application program in the

pause memory (430 – figure 4) when the television program is presented in the primary

display area, wherein execution of the interactive application program is resumed from

the user's stored point of progress in the pause memory when the interactive application

is presented in the primary display area (¶ 75).

Considering Claim 21, the claimed elements of wherein interactive application

programs are downloaded to and stored locally in the program memory, corresponds

with subject matter mentioned above in the rejection of claim 10, and is likewise treated.

5.   Claims 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lang in view of DeLuca (U.S. 5,973,723).

As for Claims 16 and 22, Lang discloses wherein the display module (74 – figure

1) is a television...with picture-in-picture capability having a secondary display area for

displaying a secondary display image in addition to the primary display area for

presenting the primary display image...(Page 8, 2nd ¶ and Page 9, 1st ¶). However, Lang

fails to explicitly disclose wherein the display module is a television or computer monitor

with picture-in-picture capability having a secondary display area for displaying a

secondary display image in addition to the primary display area for presenting the

primary display image, wherein the switching module switches the displays of the

primary display image and the secondary display image between the television program

signal and the interactive application output data so that the television program is

presented as the primary display image and the interactive application is displayed as

the secondary display image until the beginning of a commercial break is detected,

whereupon the detection of the beginning of a commercial break the interactive

application output data is presented as the primary display image and the television

program signal is displayed as the secondary display image until the end of the

commercial break is detected, whereupon the detection of the end of the commercial

break the television program signal is presented as the primary display image and the

interactive application output data is displayed as the secondary display image.

In an analogous art, DeLuca discloses wherein the display module (10 – figure 1)

is a television or computer monitor with picture-in-picture capability having a secondary

display area for displaying a secondary display image in addition to the primary display

area for presenting the primary display image (Col. 1, line 64 – Col. 2, line 8), wherein

the switching module (20 – figure 1) switches the displays of the primary display image

and the secondary display image between the television program signal and the

interactive application output data so that the television program is presented as the

primary display image and the interactive application is displayed as the secondary

display image until the beginning of a commercial break is detected, whereupon the

detection of the beginning of a commercial break the interactive application output data

is presented as the primary display image and the television program signal is displayed

as the secondary display image until the end of the commercial break is detected,

whereupon the detection of the end of the commercial break the television program

signal is presented as the primary display image and the interactive application output

data is displayed as the secondary display image (Col. 3, lines 3-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Lang with the teachings of DeLuca in order to

facilitate swapping the primary display with the secondary display during commercial

breaks for the benefit of during commercial breaks giving the secondary program the

largest area of display and playing the associated audio the loudest (DeLuca – Col. 5,

lines 3-6).

6.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in

view of Tsuchida as applied to claim 6 above, and further in view of Panabaker.

As for Claim 9, Lang and Tsuchida disclose a program memory but fail to

explicitly disclose wherein the program memory is a CD-ROM, magnetic disc, integrated

circuit, or hard drive. In an analogous art, Panabaker discloses wherein the program

memory (50 – figure 1) is a...magnetic disc (¶ 36). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Lang and Tsuchida's program memory to be a magnetic disc as taught by Panabaker

for the benefit of storing large amounts of data, like interactive programs (Panabaker - ¶

36).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chris Parry whose telephone number is (571) 272-8328.

The examiner can normally be reached on Monday through Friday, 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Examiners Initials: _CLR_
February 16, 2006

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